

IN THE CLAIMS:

1. (Currently Amended) A ball-and-socket joint for motor vehicles, the ball-and-socket joint comprising:

a joint ball and a pivot pin;

a housing part formed of a shaped metal tube and formed with a top end edge surface defining an opening and an opposite end edge surface defining a pivot pin opening, said housing part having an outer peripheral surface at an outside of the housing part extending from said top end edge surface to said opposite end edge surface and having an inner peripheral surface at an inside of said housing part opposite said outer peripheral surface, said inner peripheral surface extending from said top end edge surface to said ~~pivot pin opening~~ opposite end edge surface;

and

molded material molded on said housing part outer surface to form an outer molded material functional surface on said outer peripheral surface and opposite said inner peripheral surface and molded on said inner peripheral to form an inner molded material functional surface on said inner peripheral surface and opposite said outer peripheral surface, at least a part of said housing part being arranged, in a radial direction, between said outer molded material functional surface and said inner molded material functional surface.

2. (Previously Presented) A ball-and-socket joint according to claim 1, wherein said functional surfaces include a bearing shell portion forming at least a part of a bearing shell surface on the inside of said housing part and a bellows seat surface contour on an outside of

said housing part.

3. (Previously Presented) A ball-and-socket joint according to claim 2, wherein said bearing shell portion forms the entire bearing shell surface in contact with substantially all of a bearing surface of said joint ball.

4. (Previously Presented) A ball-and-socket joint according to claim 3, wherein said bearing shell portion includes extension segments integral with said bearing shell portion and extending from a region of said bearing shell portion molded on said housing part, said extension segments being molded to a shape to form a joint ball end region bearing surface.

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Original
5. (~~Withdrawn~~) A ball-and-socket joint according to claim 2, wherein said bearing shell portion forms only a portion of said joint ball contact surface in contact with only a portion of a bearing surface of said joint ball.

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Original
6. (~~Withdrawn~~) A ball-and-socket joint according to claim 3, further comprising: a bearing shell insert inserted in said adjacent to said bearing shell portion, said bearing shell insert having a joint ball bearing surface and cooperating with said bearing shell portion for bearing contact with said joint ball.

7. (Original) A ball-and-socket joint according to claim 4, further comprising an end cap

wherein said housing part is formed as a shaped metal tube with the top end having an opening and said end cap closes said opening.

8. (Original) A ball-and-socket joint according to claim 1, wherein said functional surfaces on each of said inside and said outside of said housing part are formed of one molded part wrapping around an edge of said housing part.

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Original
9. (~~Withdrawn~~) A ball-and-socket joint according to claim 8, wherein said functional surfaces on each of said inside and said outside of said housing part formed of one molded part wrapping around said edge of said housing part also connect to each other through one or more molded in ties integral in said molded part, said ties passing through one or more holes in said housing part.

10 - 29 (Canceled)

30. (Currently Amended) A ball-and-socket joint for motor vehicles, the ball-and-socket joint comprising:

a joint ball and a pivot pin;

a housing part formed of a shaped metal tube and formed with a top end annular surface defining an opening and an opposite end with a bottom end annular surface defining a pivot pin opening, said housing part having an outer annular peripheral surface at an outside of the

housing part extending from said top end annular surface to said bottom end annular surface and having an inner peripheral surface at an inside of said housing part extending from said top end annular surface to said bottom end annular surface ; and

10 a molded material part comprising molded material molded on said housing part outer peripheral surface forming a functional surface [[with]] defining a groove and molded material molded on said housing part inner peripheral surface forming a functional surface, said groove surface being in a molded material part region with said bottom end annular surface or said outer surface adjacent thereto being adjacent to or arranged in or backing at least a portion of

15 the molded material [[of]] defining the groove surface, at least a part of said housing part being arranged in a radial direction between said functional surface with a groove and said functional surface.

31. (Previously Presented) A ball-and-socket joint according to claim 30, wherein said bottom end annular surface is covered by said molded material part, with said molded material part extending outwardly therefrom and outwardly from the adjacent outer peripheral surface and inner peripheral surface of the housing part.

32. (Previously Presented) A ball-and-socket joint according to claim 31, wherein said groove is at least partially defined by a portion of said housing part adjacent to said bottom end annular surface, with said groove having a curve along an axial extent thereof.

33. (Previously Presented) A ball-and-socket joint according to claim 31, wherein said groove is annular extending around said housing part.

34. (Previously Presented) A ball-and-socket joint according to claim 33, wherein said molded material part is an integral single piece.

35. (Previously Presented) A ball-and-socket joint according to claim 34, wherein said groove is at least partially defined by a curve or bend in a portion of said housing part adjacent to said bottom end annular surface, with said groove having a curve along an axial extent thereof.

36. (Previously Presented) A ball-and-socket joint according to claim 30, wherein said housing part is covered by said molded material part molded on said inner surface to form at least a part of a joint ball pivot bearing surface on said inside of said housing part and on said housing part outer surface to form said groove surface.

37. (Previously Presented) A ball-and-socket joint according to claim 1, wherein said molded material of said molded material part is arranged on said inner surface to form at least a part of a joint ball pivot bearing surface on said inside of said housing part and on said housing part outer surface to form a groove surface.

38. (Previously Presented) A ball-and-socket joint according to claim 37, wherein said bottom end annular surface is covered by said molded material part, with said molded material part extending outwardly therefrom and outwardly from the adjacent outer peripheral surface and inner peripheral surface of the housing part.

39. (Currently Amended) A ball-and-socket joint according to claim 30, wherein said molded material of said molded material part is arranged on said inner surface to form at least a part of a joint ball bearing shell portion on said inside of said housing part and on said housing part outer surface to form said groove surface wherein said bearing shell portion includes extension segments with adjacent folded area regions integral with said bearing shell portion and extending from a region of said bearing shell portion molded on said housing part, said extension segments being molded to a shape to form a joint ball end region bearing surface.

40. (Previously Presented) A ball-and-socket joint according to claim 39, wherein said molded material part is an integral single piece.

41. (Currently Amended) A ball-and-socket joint for motor vehicles, the ball-and-socket joint comprising:

a joint ball and a pivot pin;

a housing part formed of a shaped metal tube and formed with a top end edge surface with a top opening and an opposite end with a pivot pin opening having a pivot pin opening

edge surface, said housing part having an outer surface at an outside of the housing part extending from said top end edge surface to said pivot pin opening edge surface and having an inner surface at an inside of said housing part extending from said top end edge to said pivot pin opening edge surface; and

10 molded material part molded on said housing part inner surface to form at least a part of a joint ball pivot bearing shell surface portion on said inside of said housing part and said molded material molded on said housing part outer surface to form a groove surface directed outwardly and opposite said housing part inner surface, said groove surface being defined by a bent or curved portion of said housing part, adjacent to said pivot pin opening edge surface,
15 cooperating with said molded material on said housing part outer surface with at least a part of said housing part being arranged in a radial direction opposite said groove and said molded material covering said opposite end.

42. (Currently Amended) A ball-and-socket joint according to claim 41, further comprising a bellows seal, wherein said groove is a bellows seat surface contour on an outside of said housing part, said bellows seal having a portion seated in said ~~for receiving~~ bellows seat surface contour.

43. (Currently Amended) A ball-and-socket joint according to claim 41, wherein said molded material of said molded material part is arranged on said inner surface to form said joint ball bearing shell portion on said inside of said housing part wherein said bearing shell portion

includes extension segments with adjacent folded area regions integral with said bearing shell portion and extending from a region of said bearing shell portion molded on said housing part, said extension segments being molded to a shape to form a joint ball end region bearing surface wherein said bearing shell portion and said joint ball end region bearing surface forms the entire bearing shell.

Previously Presented

DPS 44. ~~(Withdrawn)~~ A ball-and-socket joint according to claim 41, wherein said bearing shell portion forms only a portion of a joint ball contact surface in contact with a bearing surface of said joint ball.

45. (Previously Presented) A ball-and-socket joint according to claim 41, further comprising an end cap connected to said housing part at said top end edge surface, said end cap closing said top opening.

46. (Previously Presented) A ball-and-socket joint according to claim 41, wherein, said groove is annular extending around said housing part.

47. (Previously Presented) A ball-and-socket joint according to claim 41, wherein said molded material part is an integral single piece.

48. (Previously Presented) A ball-and-socket joint according to claim 41, wherein said

molded material part wraps around said pivot pin opening edge surface of said housing part.

Previously Presented

DPS
5 49. [^]~~(Withdrawn)~~ A ball-and-socket joint according to claim 48, wherein said functional surfaces on each of said inside and said outside of said housing part formed of one molded part wrapping around said edge surface of said housing part also connect to each other through one or more molded in ties integral in said molded part, said ties passing through one or more holes in said housing part.

50. (New) A ball-and-socket joint in accordance with claim 1, wherein said molded material forms an integral single molded piece.

51. (New) A ball-and-socket joint in accordance with claim 50, wherein said molded material is arranged on said opposite end edge surface.

52. (New) A ball-and-socket joint in accordance with claim 50, wherein said molded piece comprises an annular blind hole, said housing part being partly arranged within said annular blind hole.

53. (New) A ball-and-socket joint in accordance with claim 52, wherein said opposite end edge surface is arranged within said annular blind hole.

54. (New) A ball-and-socket joint in accordance with claim 53, wherein said annular blind hole is curved in an axial direction.